CONTENTS

Volume 20, Issue Nos. 1–6

VOLUME 20, ISSUE No. 1 **January–February 1999**

Robust Inventory–Production Control Problem with Stochastic Demand: E. K. Boukas, P. Shi and A. Andijani 1

Computation of Optimal Control Trajectories using Chebyshev Polynominals: Parameterization and Quadratic Programming: H. Jaddu and E. Shimemura . . 21

SHORT COMMUNICATIONS

Expotentially Decaying Inventory with Partial Back-Ordering: H.-M. Wee and H. M. Mercan 43

Reduced-order Observer for Systems with Piecewise Constant Inputs: A. Cohen and Y. Halevi 51

VOLUME 20, ISSUE No. 2 **March–April 1999**

Eigenvector Approximate Dichotomic Basis Method for Solving Hyper-Sensitive Optimal Control Problems
A. V. Rao and D. Mease 59

Linear-quadratic Optimal Control with Integral Quadratic Constraints
A. E. B. Lim, Y. Q. Lieu, K. L. Teo and J. B. Moore 79

Subsystem-level Optimal Control of Weakly Coupled Linear Stochastic Systems Composed of N Subsystems
M.-T. Lim and Z. Gajic 93

VOLUME 20, ISSUE No. 3 **May–June 1999**

New Solution Bounds for the Discrete Algebraic Matrix Riccati Equation
C.-H. Lee and T.-L. Hsien 113

Dynamic Effects of Learning Capabilities and Profit Structures on the Innovation Competition
B. Kim 127

'Applied Mechanics Review', 'Cambridge Scientific Abstracts', 'Compumath Citation Index (ISI)', 'Current Contents/Engineering, Computing & Technology (ISI)', 'Engineering Index', 'Eng. Societies Library', 'INSPEC', 'Int. Abstracts in Operations Research', 'Mathematical Reviews', 'Research Alert (ISI)', 'SciSearch Database (also known as Science Citation Index—Expanded) (ISI)', 'Statistical Theory & Method Abstracts' and 'Zentralblatt für Mathematik'.

Optimal Time Control of Bioreactors for the Wastewater Treatment
J. Moreno 145

VOLUME 20, ISSUE No. 4 July–August 1999

Design of an Optimal Feedback Linearizing-based Controller for an Experimental Flexible Joint Robot Manipulator: T. Lahdhiri and H. A. ElMaraghy . . . 165

An Extended Model for Pairwise Conflict Resolution in Air Traffic Management: J. C. Clements and B. Ingalls 183

SHORT COMMUNICATIONS
Oligopoly Advertising Strategies with Market Expansion: G. E. Fruchter . . . 199

A Tuning-free Method for Parameter Estimation under Varying Error Characteristics: M. Agarwal 213

VOLUME 20, ISSUE No. 5 September–October 1999

A New 3-D Pursuit-Evasion Differential Game Between Two Bank-to-turn Airborne Vehicles: A. Segal and T. Miloh 223

Trajectory Planning of a Free-flying Robot by Using the Optimal Control: Y. Sakawa 235

Sensitivity of Discrete-time Kalman Filter to Statistical Modeling Errors: S. S. Saab and G. E. Nasr 249

SHORT COMMUNICATION
Solution of Some Model Predictive Control Problems Using Slopes Between Unconstrained and Constrained Optimums: Y. P. Gupta 261

VOLUME 20, ISSUE No. 6 November–December 1999

Robust Internal Model-based LQG Design for Active Noise Control of a One-dimensional Acoustic Duct System: Jong-Yih Lin and Horng-Yih Sheu . 267

Minimum Energy Trajectories for Subway Systems: Manuel A. Duarte and Patricia X. Sotomayor 283

Optimal Utilization of a Transport System with Auto/Transit Parallel Modes: Hai-Jun Huang and Hai Yang 297

AUTHOR INDEX 315

KEY WORD INDEX 317